

Geometry

Unit Three – G.GMD. 1 Review (HW5)

For each multiple choice question, please circle your answer.

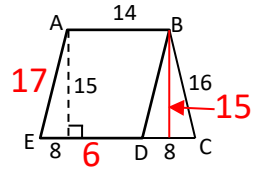
Name: _____

Date: _____ Period: _____

1. The perimeter of a rectangle is 54 cm and the base length is twice the height. What is the area?
 a. 108 cm² b. 154 cm² **c. 162 cm²** d. 324 cm²

2. The perimeter of a rectangle is 40 cm. If the width is 8 cm, what is the length?
a. 12cm b. 16 cm c. 32 cm d. 48 cm

3. What is the area, in square units, of parallelogram ABDE?
 a. 120 b. 136 **c. 210** d. 240



4. What is the area, in square units, of $\triangle BCD$?
a. 60 b. 128 c. 120 d. cannot be determined

5. What is the area, in square units, of trapezoid ABCE?
 a. 240 **b. 270** c. 352 d. 420

6. The perimeter of ABCE is:
 a. 63 units **b. 69 units** c. 75 units d. cannot be determined

7. What is the measure of the base of a triangle with height of 20 cm and an area of 100 cm²?
 a. 5 cm b. 6 cm c. 8 cm **d. 10 cm**

8. To the nearest tenth, the circumference of a circle with a radius of 3 cm is:
 a. 9.4 cm **b. 18.8 cm** c. 28.3 cm d. 31.4 cm

9. Given the following information about circles, determine the missing information.

a) $C = 16 \text{ cm}$ $16 = \pi d$ $\frac{16}{\pi} = \frac{\pi d}{\pi}$ $d = \frac{16}{\pi} \text{ cm}$ (E)	b) $r = 5\sqrt{2} \text{ cm}$ $d = 2(5\sqrt{2}) = 10\sqrt{2}$ $d = 10\sqrt{2} \text{ cm}$	c) $r = \pi \text{ cm}$ $2\pi(\pi) = 2\pi^2$ $C = 2\pi^2 \text{ cm}$ (E)	d) $C = 10\pi \text{ cm}$ $10\pi = \pi d$ $\frac{10\pi}{2\pi} = \frac{2\pi r}{2\pi}$ $r = 5 \text{ cm}$
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10. Find the area and perimeter of each of the shapes below. Give answers marked with an (E) as exact. Round all other answers to one decimal place.

a) $h^2 + 3^2 = 5^2$
 $h = 4$

$A = \frac{1}{2}(4)(4+11) = 30 \text{ cm}^2$

Area = 30 cm² (E)

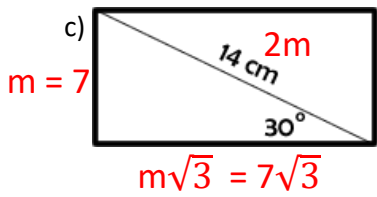
Perimeter = 20 + 4\sqrt{2} cm (E)

b) $h^2 + 5^2 = 13^2$
 $h = 12$

$A = \frac{1}{2}(10)(12) = 60 \text{ cm}^2$

Area = 60 cm² (E)

Perimeter = 36 cm (E)

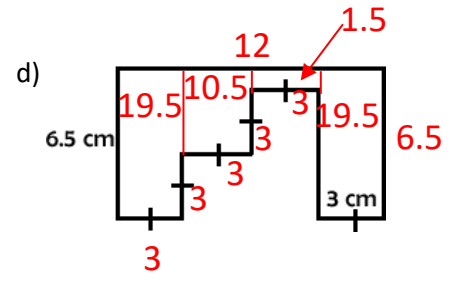


$m\sqrt{3} = 7\sqrt{3}$

$A = (7)(7\sqrt{3})$

Area = $49\sqrt{3}$ cm (E)

Perimeter = $14 + 14\sqrt{3}$ cm (E)

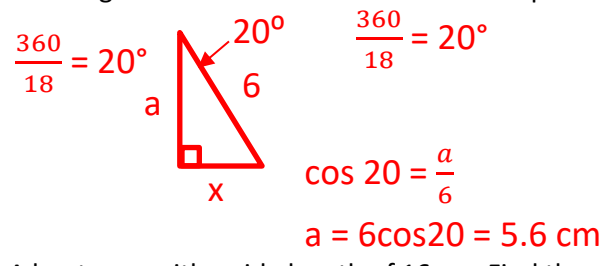


Area = 51 cm² (E)

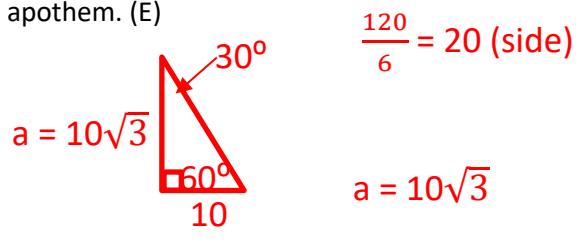
Perimeter = 49 cm (E)

11. Find the missing measurement using the information provided. Leave answers marked with an (E) exact and round other answers to one decimal place.

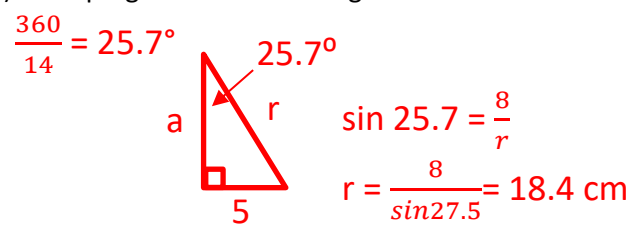
a) A nonagon with a radius of 6 cm. Find the apothem.



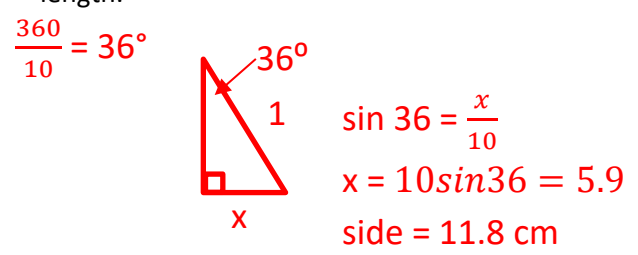
b) A hexagon with a perimeter of 120 in. Find the apothem. (E)



c) A heptagon with a side length of 16 cm. Find the radius.

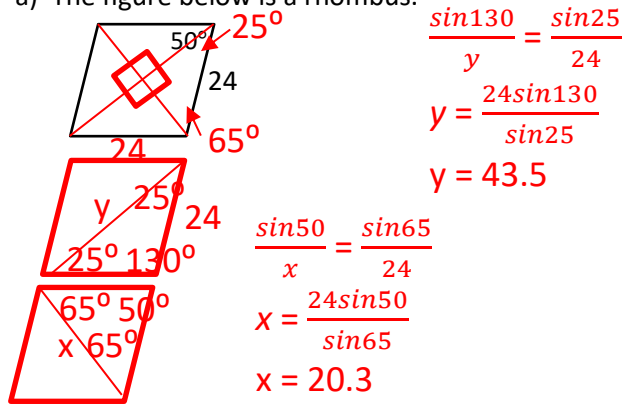


d) A pentagon with a radius of 10 cm. Find the side length.

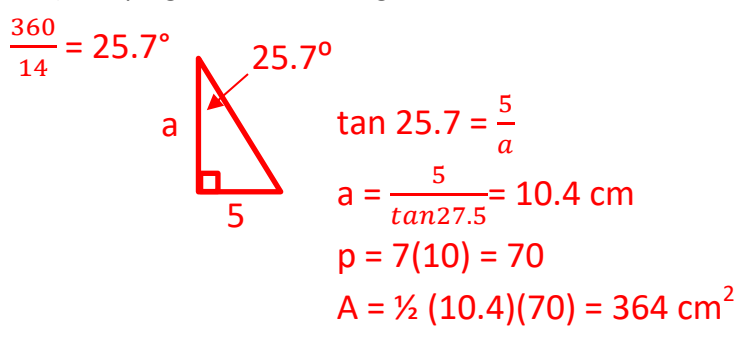


12. Find the area of the following figures.

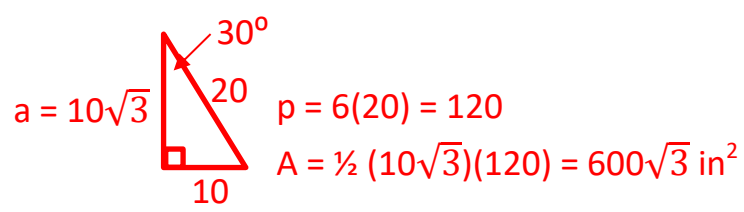
a) The figure below is a rhombus.



b) A heptagon has a side length of 10 cm.



c) Find the area of a hexagon that has a radius of 20 in.



d) Find the area of the shaded sector.

$A = \frac{15}{360}(\pi)(12)^2$

$A = 6\pi$ cm²

